



## The California Space Authority (CSA) WIRED Project

### “Workforce Transformation: Innovation Support, Industrial Rejuvenation, Talent Development”

*“Innovation, education and entrepreneurship—those are the keys that will open the door to challenging and rewarding jobs... That is exactly what the California Space Authority is doing with its thoughtful strategy to keep California competitive in the global economy of the 21st Century.”*

----- Governor Arnold Schwarzenegger  
February 2, 2006

#### **California Space Authority to Lead Region-Wide Innovation Corridor Workforce Initiative**

Governor Schwarzenegger submitted CSA’s “Workforce Transformation” proposal for the WIRED (Workforce Innovation in Regional Economic Development) grant to the U.S. Department of Labor in January, 2006 as a way to advance the “shared ‘Demand Driven’ vision for the workforce system”. The State Labor & Workforce Development Agency and its Employment Development Department supported the California Space Authority’s<sup>1</sup> proposal incorporating over 60 industry, government, education, economic development and workforce development entities within California’s Innovation Corridor. On February 1, 2006, the Innovation Corridor proposal was announced as one of 13 regional proposals nationwide to be awarded a \$15 million federal grant. The CSA Innovation Corridor project, which includes activities in 13 California counties (see map), addresses three Innovation Corridor issues: entrepreneurship development, global competitiveness in manufacturing and the supply chain, and creation of the next generation of innovators and technicians. In addition to training workers for 21st Century high-skill, high-wage jobs, CSA’s “Workforce Transformation” grant project will help California capitalize on its wealth of science, research and manufacturing assets, and retain its role on the leading edge of global innovation.

Three strategic goals<sup>1</sup> will provide focus for CSA and partner performance under the “Workforce Transformation” project selected under the “WIRED” Initiative (see below) developed by the U.S. Department of Labor:

- Sustainable Entrepreneurship
- Manufacturing Value Chain and Supplier Competitiveness
- Development of Innovation-Oriented Technical Talent

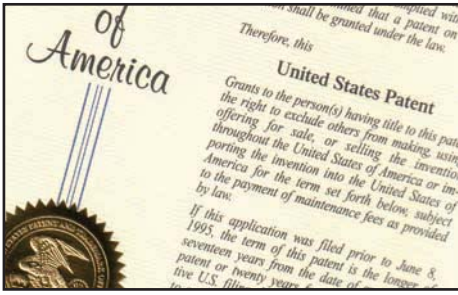
#### **Background: Workforce Innovation in Regional Economic Development (WIRED)**

While global competition is commonly seen as a national challenge, in reality the front lines of the battle are regional, where companies, workers, researchers, entrepreneurs and government come together to create competitive advantage. That advantage stems from the ability to transform new ideas and new knowledge into advanced, high-quality products and services — in other words, to innovate and commercialize. Just as today’s successful technological economy in large part derives from research and technology investment in the mid to late 20th Century, tomorrow’s successful economies will evolve in those regions fostering technology innovation in the early 21st Century. Three elements can accelerate this process: workforce skill-building and lifelong learning strategies, investment and entrepreneurial strategies, and regional and economic development strategies.

The U.S. Department of Labor’s WIRED Initiative is focusing on labor market areas comprised of multiple jurisdictions within a state or across state borders. It supports innovative approaches to education and workforce development that go beyond traditional strategies of training individuals for current jobs. By fostering the development of strategies supporting entrepreneurship and global competitiveness, as well as innovative workforce development, WIRED is intended to catalyze the creation and sustainability of high-skill, high-wage opportunities for American workers within the context of regional economies.

<sup>1</sup>See inside detail





## The California Space Authority (CSA) WIRED Project

### “Workforce Transformation: Innovation Support, Industrial Rejuvenation, Talent Development”

The California Space Authority (CSA) has been selected to lead a 13 county economic region comprising the “California Innovation Corridor” to work in cooperation with the U.S. Department of Labor Employment and Training Administration, the State of California’s Labor and Workforce Development Agency and its Employment Development Department and over 60 industry, workforce and economic development partners in a joint effort to drive the Corridor’s entrepreneurship, global manufacturing competitiveness and 21st Century workforce development. The strategies and projects below are included in the CSA WIRED effort. CSA’s WIRED partners are shown on the back page.

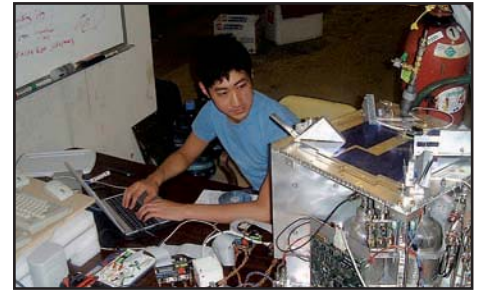
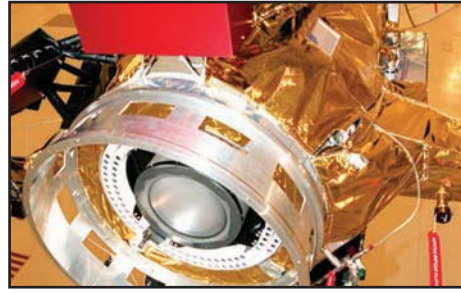
#### ***Innovation Support: Sustainable Entrepreneurship***

- Create an economic development model to ensure leverage of regional innovation assets into commercial products and services
- Develop regional training strategy for five targeted 21st Century job profiles, e.g. nano, robotics
- Inventory key innovation assets within Innovation Corridor; design process for upkeep
- Execute replicable demonstration entrepreneurship training project for 40 SBIR Phase II awardees
- Establish professorial internship pilot program
- Design graduate student internship demonstration project capitalizing on federal lab and technology commercialization opportunities
- Create a Workforce Investment Board resource tool for development of 21st Century knowledge and innovation workers

#### ***Industrial Rejuvenation: Manufacturing Value Chain and Supplier Competitiveness***

- Survey 1000 existing and potential 21st Century manufacturers/suppliers, identifying “smart supplier” global competitiveness skills; matrix Corridor training assets
- Define requirements and program outcomes for “Smart Supplier Programs”
- Educate at least 3000 supplier contacts about “smart supplier” resource providers and Employment Training Panel funding support opportunities
- Design and implement industry-driven community college 21st Century manufacturing technician training and certification program





### ***Talent Development: Creation of 21st Century Innovation-Oriented Technical Talent***

- Conduct labor needs assessment/projections on key space and information technology employers, manufacturers, space small business and entrepreneurial firms
- Organize/maintain a space employer/university consortium to align needs assessment with design of programs to serve “real-world” needs
- Create two space-related university apprenticeship programs featuring hands-on learning
- Design/execute outreach program to attract 100 working engineers into systems engineering training programs
- Develop a strategic plan for capitalizing on K-U and informal science network resources to support math, science and engineering workforce preparation
- Create two replicable pilot high-school science/engineering academies
- Develop pilot program to retrain dislocated software specialists for space-related computer science technician work
- Create mentoring/industry-orientation program for university students and grad advisors
- Train and support 20 K-12 math and science teacher recruits from high tech industries, using California Troops to Teachers program or California’s alternative “fast track” certification programs
- Create pilot internship/scholarship programs with universities supporting the Stanford model of high school math and science mentoring
- Develop a pilot community college industrial technology hybrid “Mechatronics” degree combining mechanical engineering, electronics, robotics, and computer science. Convene advisory group to develop guidelines for pre-engineering certification program for community colleges
- Host two Corridor-wide K-12 educator science/innovation conferences a year
- Identify a standard terminology across the 21 fields of understanding common to science, engineering and technology by creating a prototype skills/knowledge “dictionary”
- Create/sustain a “learning collaboratory” comprised of the Corridor’s WIBs to provide inputs to the economic development model and WIB resource tool identified under “Sustainable Entrepreneurship”.

---

## **California Space Authority**

*Governed by a statewide board of directors, the California Space Authority is a nonprofit organization representing the diverse interests of the California space community in all three domains: commercial, civil and national security. As the State’s designated Space Authority, CSA works closely with industry, government, academia/education and workforce entities.*

Administrative Office • 3201 Airpark Drive, Ste. 204, Santa Maria, CA 93455 • (805) 349-2633

Capital Office • 1107 Ninth Street, Ste. 1005, Sacramento, CA 95814 • (916) 551-1543

Los Angeles Office • 3858 Carson Street, Ste. 110, Torrance, CA 90503 • (310) 316-3271

San Bernardino Office • 294 South Leland Norton Way, Ste. 3, San Bernardino, Ste. 3, CA 92408 • (909) 382-7300

San Diego Office • 1870 Cordell Court, Ste. 202, El Cajon, CA 92020 • (619) 562-3400

[www.californiaspaceauthority.org](http://www.californiaspaceauthority.org)



# The California Space Authority (CSA) WIRED Project

**“Workforce Transformation: Innovation Support,  
Industrial Rejuvenation, Talent Development”**

## Partnering and Supporting Organizations

ACE Clearwater Enterprises  
Aerospace Corporation, The  
Allan Hancock College  
Antelope Valley Board of Trade  
Antelope Valley College  
Bay Area Economic Forum/  
Bay Area Science Infrastructure Consortium  
Boeing Company, The  
California Council on Science & Technology  
California Engineering Foundation  
California Manufacturing Technology Consulting  
California Space Authority  
California Space Education & Workforce Institute  
California State Polytechnic University, Pomona  
NASBO/NASA Commercialization Center  
California State Polytechnic University, San Luis Obispo  
California Troops to Teachers  
California Workforce Association  
Cerritos College/Center for Applied Competitive Technologies  
Chabin Concepts  
City of Lancaster, Lancaster University Center/The Aerospace Office  
City of Lompoc Economic Development Office  
College of the Canyons  
Economic Vitality Corporation of San Luis Obispo County  
El Camino College  
Employment Development Department,  
Labor and Workforce Development Agency, State of California  
Employment Training Panel, State of California  
Garvey Spacecraft Corporation/  
California State University, Long Beach  
Golden Capital Network  
Greater Antelope Valley Economic Alliance  
Inland Empire Economic Partnership  
Kelly Space & Technology, Incorporated  
Kern Economic Development Corporation  
L5 Performance Systems  
Lockheed Martin Space Systems Company  
Los Angeles County Economic Development Corporation  
Los Angeles City Workforce Investment Board  
Los Angeles County Workforce Investment Board  
Manex – The Corporation for Manufacturing Excellence  
Mathematics Engineering Science Achievement (MESA)  
Mission Community Services Corporation/Women's Entrepreneurial Ventures  
NASA Ames Research Center  
NASA Dryden Flight Research Center  
NASA Jet Propulsion Laboratory  
Naval Postgraduate School  
Northrop Grumman Corporation

NOVA – North (Santa Clara) Valley Workforce Investment Board  
Orange County Business Council  
Orange County Workforce Investment Board  
Private Industry Council of San Luis Obispo County  
San Bernardino County Workforce Investment Board  
San Diego East County Economic Development Council/Connectory  
San Diego Workforce Partnership  
Santa Maria Valley Chamber of Commerce/  
Economic Development Commission  
South Bay Economic Development Partnership  
South Bay Science Foundation  
South Bay Workforce Investment Board  
Southern California Edison  
Space Exploration Technologies  
Space Information Laboratories, Incorporated  
Space Systems/Loral  
Stanford University/Space Systems Development Laboratory  
Strategic Vitality, LLC  
Supplier Excellence Alliance  
University of California, Riverside/Bourns College of Engineering  
University of California, Santa Cruz, Extension  
University of Southern California, Viterbi School of Engineering,  
Western Regional Applications Center (WESRAC)  
Ventura County Economic Development Association  
Workforce Development Centers of Riverside County  
Workforce Investment Board of Ventura County

